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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,295	01/16/2002	Christopher John Frye	1033-01	8738

7590

08/06/2003

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EXAMINER

NASRI, JAVAID H

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,295

Applicant(s)

FRYE ET AL.

Examiner

Javaid Nasri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following informalities:

- a) In claim 8, line 4, change "a arm" to -- an arm --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a) In claim 16, lines 7 and 8, it is not clear what is being deformed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 3, 5, 9, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Omiya et al.

Omiya et al. discloses a plurality of flexible protrusions (3) extending inwardly from the inner perimeter of the cavity to contactingly engage an optical fiber (see figure 4) inserted into the cavity, the protrusions are substantially uniformly deformed by the insertion of the optical fiber into the cavity to align the optical fiber therein, the plurality of protrusions are spaced from each other at a distance smaller than the diameter of the optical fiber, extend the entire length of the cavity.

6. Claims 1-6 and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka.

Tanaka discloses a plurality of flexible protrusions (54b) extending inwardly from the inner perimeter of the cavity to contactingly engage an optical fiber (13) inserted into the cavity, the protrusions are substantially uniformly deformed by the insertion of the optical fiber into the cavity to align the optical fiber therein, the plurality of protrusions are spaced from each other at a distance smaller than the diameter of the optical fiber, extend the entire length of the cavity, arm (at 54c), lip (at 54b), tapered (see marked figure 10, attached), the plurality of protrusion are

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tapered along the cavity (see note below) from spacing less than the diameter of the optical fiber to a spacing greater than the diameter of the optical fiber (see marked figure 10, attached).

Note: along which direction of the cavity is not defined in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omiya et al. in view of admitted prior art in the specification page 8, lines 9-17.

Omiya et al. discloses all the limitations of claims 1 and 9, as shown above,

However, Omiya et al. does not disclose:

- a) the plurality of protrusions is formed by the creation of the cavity.
Admitted prior art discloses the plurality of protrusions are formed by the creation of the cavity, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention to form the protrusions of Omiya et al by the creation of the cavity in view of the admitted prior art for low cost in manufacturing.
- b) applying a mask to the substrate, shaping the mask, etching (RIE process) the substrate. Admitted prior art discloses creating an apparatus for aligning optical fibers by applying a mask to the substrate, shaping the

mask, etching (RIE process) the substrate, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Omiya et al to create an apparatus for aligning optical fibers by applying a mask to the substrate, shaping the mask, etching (RIE process) the substrate in view of the admitted prior art to lower the manufacturing cost.

- c) process is accomplished using photolithography. Admitted prior art discloses process is accomplished using photolithography, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Omiya et al to have process accomplished using photolithography in view of the admitted prior art to lower the manufacturing cost.

9. Claims 7 and 15-²⁰~~19~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of admitted prior art in the specification page 8, lines 9-17.

Tanaka discloses all the limitations of claims 1 and 9, as shown above. Tanaka also discloses arm (at 54c) and lip (at 54b), the plurality of protrusion are tapered along the cavity (see note below) from spacing less than the diameter of the optical fiber to a spacing greater than the diameter of the optical fiber (see marked figure 10, attached).

Note: along which direction of the cavity is not defined in the claim.

However, Tanaka does not disclose:

- a) the plurality of protrusions are formed by the creation of the cavity.
Admitted prior art discloses the plurality of protrusions are formed by the creation of the cavity, therefore, it would have been obvious to one of

ordinary skill in the art, at the time of the invention to form the protrusions of Tanaka by the creation of the cavity in view of the admitted prior art for low cost in manufacturing.

- b) applying a mask to the substrate, shaping the mask, etching (RIE process) the substrate. Admitted prior art discloses creating an apparatus for aligning optical fibers by applying a mask to the substrate, shaping the mask, etching (RIE process) the substrate, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Tanaka to create an apparatus for aligning optical fibers by applying a mask to the substrate, shaping the mask, etching (RIE process) the substrate in view of the admitted prior art to lower the manufacturing cost.
- c) process is accomplished using photolithography. Admitted prior art discloses process is accomplished using photolithography, therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention for Tanaka to have process accomplished using photolithography in view of the admitted prior art to lower the manufacturing cost.

Contact

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javaid Nasri whose telephone number is 703 308 5876. The examiner can normally be reached on Monday to Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 703 308 2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7722 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

Any correspondence to this action may be mailed to:

**Commissioner for Patents
Post Office Box 1450
Alexandria, VA 22313-1450**

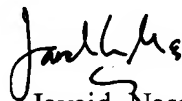
For additional information regarding this new address, which was effective May 1, 2003, see *Correspondence with the United States Patent and Trademark Office*, 68 Fed. Reg. 14332 (March 25, 2003).

Or faxed to: 703-308-7722 or 308-7724 (informal or draft communications should be clearly labeled "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to:

Crystal Plaza 4, Fourth Floor (receptionist)

2201 South Clark Place, Arlington, Virginia



Javaid Nasri
Primary Examiner
Art Unit 2839

JN

jhn
August 4, 2003